

# The Efficacy of Curoso Caps in Infection Reduction

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## Introduction

The current practice for accessing a central line or intravenous access point is by sterilizing the hub site manually with an alcohol swab. However, using an alcohol impregnated port protector cap is more effective at both sterilizing the site and reducing the incidence of bloodstream infections. The overall decrease in the incidence of infection shortens the length of hospital stay and lowers treatment costs.

The purpose of this literature review is to help provide evidence to Spencer Hospital in Spencer, Iowa regarding the best standard of care for patients with central lines and intravenous access devices.

**Clinical Question:** For patients in an acute care setting with central lines, is using a Curoso cap rather than adhering to current practice (sterilizing the hub manually) more effective in decreasing the rate of central line associated bloodstream infections?

## Method

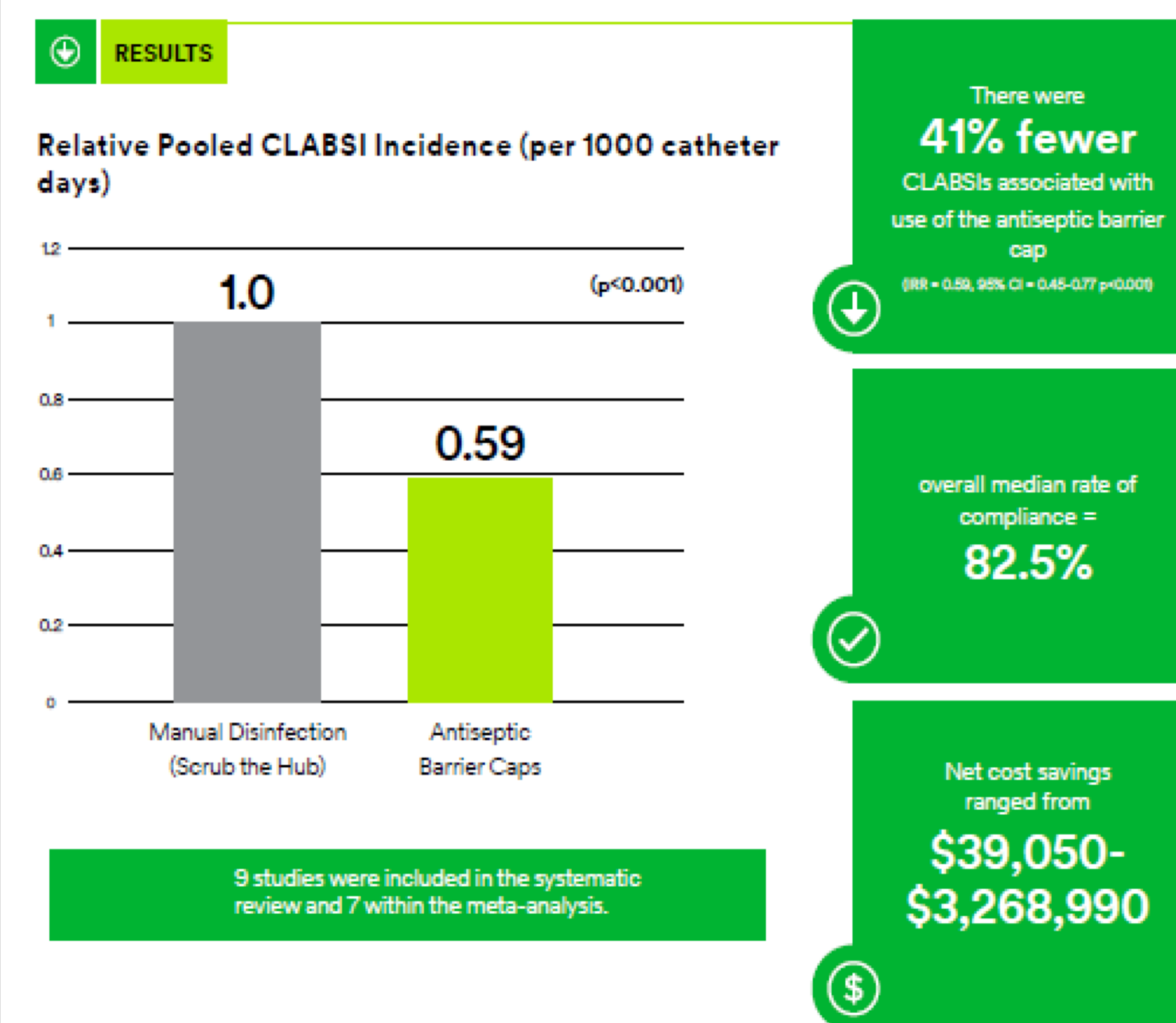
The Johns Hopkins appraisal system (Dang & Dearholt, 2017) method was used to appraise the level and quality of evidence of the literature review. The summary below identifies the rating system of this review. In total, ten evidence-based articles were utilized. Inclusion criteria for articles was that the articles had to have been published within the last ten years and must contain relevant keywords.

Databases: CINAHL and 3M Science

Keywords: port protector caps, disinfecting caps, needleless caps, disinfecting port protectors, Curoso caps

## Results

- Overall Results: alcohol-impregnated port protector caps, such as Curoso Caps, decrease bloodstream infections (BSIs) in both peripheral and central intravenous lines, as compared to the traditional method of manually sterilizing the hub
- For nurses: decreases time spent on disinfecting hubs as well as simplifies daily nursing tasks
- For the Hospital: since the use of alcohol-impregnated caps reduce and prevent infection, the use of such caps could result in a major financial benefit



## Conclusion

Alcohol impregnated port protecting caps, in comparison to the current practice of “scrubbing the hub,” are more beneficial in reducing blood stream infections in both central and peripheral lines. Not only does it reduce the risk of infections, there is a decrease in cost, time spent disinfecting ports, and hospital stay.

For the best results, education about the use and compliance of the port protecting caps is necessary for all health care providers.

The use of these port protectors is beneficial across the board.

## Proposed Interventions

- Implementing the use of alcohol-impregnated disinfecting port protectors to all needleless connectors as well as all disconnected tubing
- Education for providers, such as learning modules and discussions within huddles, among all healthcare providers in order to promote compliance

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